

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (previously presented) A radome comprising flexible composite fabric material including polyester-polyarylate fibers in a flexible resin matrix material structured to increase the radome strength and reduce radio frequency transmission losses through the radome.
2. (original) The radome of claim 1 in which the polyester-polyarylate fibers are woven into fabric.
3. (original) The radome of claim 1 in which the polyester-polyarylate fibers are knitted into fabric.
4. (original) The radome of claim 1 in which the flexible resin matrix is a polyurethane resin.
5. (original) The radome of claim 1 further including a skin bonded to the flexible composite fabric material.
6. (original) The radome of claim 5 wherein the skin is comprised of polytetrafluoroethylene (PTFE).

7. (original) The radome of claim 5 wherein the skin is comprised of fluorinated ethylene propylene (FEP).
8. (original) The radome of claim 5 wherein the skin is comprised of perfluoroalkoxy resin (PFA).
9. (original) The radome of claim 1 in which the polyester-polyarylate fibers have a length of several hundred feet.
10. (original) The radome of claim 1 in which the polyester-polyarylate fibers form yarns.
11. (original) The radome of claim 10 in which the yarns are woven.
12. (original) The radome of claim 10 in which the yarns are knitted.
13. (original) The radome of claim 1 in which the flexible composite fabric material is comprised of one ply.
14. (original) The radome of claim 1 in which the flexible composite fabric material includes more than one ply.
15. (original) The radome of claim 2 in which the fabric is multi-axial.

16. (original) The radome of claim 3 in which the fabric is multi-axial.
17. (previously presented) A flexible fabric radome comprising flexible composite material including polyester-polyarylate fibers woven in a flexible resin matrix.
18. (previously presented) A flexible fabric radome comprising flexible composite material including polyester-polyarylate fibers knitted in a flexible resin matrix.
19. (previously presented) A method of producing a flexible fabric radome, the method comprising:
- combining polyester-polyarylate fibers with a flexible resin matrix material to form a flexible composite fabric material.
20. (original) The method of claim 19 in which the polyester-polyarylate fibers are woven into fabric.
21. (original) The method of claim 19 in which the polyester-polyarylate fibers are knitted into fabric.
22. (original) The method of claim 19 in which the flexible resin matrix material is a polyurethane resin.

23. (original) The method of claim 19 further including bonding a skin to the flexible composite fabric material.

24. (original) The method of claim 23 wherein the skin is comprised of polytetrafluoroethylene (PTFE).

25. (original) The method of claim 23 wherein the skin is comprised of fluorinated ethylene propylene (FEP).

26. (original) The method of claim 23 wherein the skin is comprised of perfluoroalkoxy resin (PFA).

27. (original) The method of claim 23 wherein the skin is bonded to the flexible composite fabric material by chemical etching.

28. (original) The method of claim 23 wherein the skin is bonded to the flexible composite fabric material by corona treatment combined with adhesive bonding.

29. (original) The method of claim 23 wherein the skin is bonded to the flexible composite fabric material by lamination.

30. (original) The method of claim 23 wherein the skin is bonded to the flexible composite fabric material by melt processing.

31. (original) The method of claim 19 further including forming plies of flexible composite fabric material.

32. (original) The method of claim 20 in which the fabric is multi-axial.

33. (original) The method of claim 21 in which the fabric is multi-axial.

34. (previously presented) An air-supported flexible fabric or stretched membrane radome comprising flexible composite fabric material including polyester-polyarylate fibers in a flexible resin matrix material.

35. (previously presented) A radome comprising:
a flexible composite fabric material including polyester-polyarylate fibers forming yarns woven or knitted into fabric in a flexible resin matrix material; and
an outer hydrophobic exterior covering bonded to the flexible composite fabric material.